

### **REMARKS**

The Office Action dated July 17, 2006, and the patents and published patent applications cited therein have been carefully reviewed, and in view of the above changes and following remarks reconsideration and allowance of all the claims pending in the application are respectfully requested.

#### **The Rejection Under 35 U.S.C. § 101**

Claims 16-29 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

Applicants respectfully submit that the subject matter of claims 16-29 is directed to statutory subject matter. In particular, Applicants respectfully submit that claim 16 is directed to a storage medium having a recording format therein. Applicants respectfully submit that the subject matter of claim 16 is at least a manufacture and, thus, within the statutory subject matter of 35 U.S.C. § 101.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection.

#### **The Rejection Under 35 U.S.C. § 102(e) Over Servi**

Claims 1, 16 and 30 stand rejected under 35 U.S.C. § 102(e) as anticipated by Servi et al. (Servi), U.S. Patent Application Publication No. 2004/0107400 A1. This rejection is respectfully traversed.

Applicants respectfully submit that the subject matter of claims 1, 16 and 30 is not anticipated by Servi. Regarding claim 1, Servi does not disclose a method for protecting data comprising associating  $n$  data information sectors with  $c$  redundancy information sectors, such that the  $c$  redundancy information sectors being based on the  $n$  data information sectors, and  $n$  and  $c$  being integer value numbers. Instead, Servi discloses a method for protecting data in which a set of data symbols is protected by a set of parity points. Servi is silent regarding associating information sectors with redundancy information sectors.

Regarding claims 16 and 30, Applicants respectfully submit that claims 16 and 30 are not anticipated by Servi for a reason that is similar to the reasons that claim 1 is considered to not be anticipated by Servi.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection.

**The Rejection Under 35 U.S.C. § 103(a) Over Servi In View of Kaneda**

Claims 3, 6-9, 13-15, 18, 23, 24, 28, 29, 32, 37, 38, 42 and 43 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Servi in view of Kaneda et al., U.S. Patent No. 5,958,067. This rejection is respectfully traversed.

Applicants respectfully submits that the subject matter of any of claims 3, 6-9, 13-15, 18, 23, 24, 28, 29, 32, 37, 38, 42 and 43 is patentable over Servi in view of Kaneda. Applicants respectfully submit that Servi and Kaneda are not properly combinable to form a basis for rejection of these claims. Further, the method and device resulting from the combination of Servi and Kaneda is not the subject matter of claims 3, 6-9, 13-15, 18, 23, 24, 28, 29, 32, 37, 38, 42 and 43.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Contrary to the Examiner's statement, there simply is no suggestion in either Servi or Kaneda to combine Servi with Kaneda for "improved response performance and throughput." While the Examiner cites column 3, lines 51-56, as support for such a motivation, the particular portion of Kaneda cited by the Examiner relates to a general description of the Kaneda system,

as provided by Kaneda. Moreover, Kaneda does not disclose or suggest that the Kaneda disk array system can utilize an error correction and erasure code that uses a parity set and a data set having a relationship defined by a bipartite graph, such as that disclosed by Servi. Further still, Servi does not disclose or suggest that the disclosed bipartite-graph-based error correction and erasure codes can be used with an array type disk system that updates redundant data in an asynchronous manner with disk access such as that disclosed by Kaneda.

Thus, Applicants respectfully submit that it is only by impermissible hindsight that the Examiner is able to reject claims 3, 6-9, 13-15, 18, 23, 24, 28, 29, 32, 37, 38, 42 and 43 based on the combination of Servi and Kaneda. Neither of the applied patents provides a proper suggestion for combination. It is only by the Applicants' disclosure that the Examiner can select particular features of Servi and Kaneda to make the rejection.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection.

#### **The Rejection Under 35 U.S.C. § 103(a) Over Servi In View of Hetzler**

Claims 2, 4-7, 10-12, 17, 19-22, 25-27, 31, 33-36 and 39-41 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Servi in view of Hetzler et al. (Hetzler), U.S. Patent Application Publication No. 2005/0015700 A1. This rejection is respectfully traversed.

Applicants respectfully submits that the subject matter of any of claims 2, 4-7, 10-12, 17, 19-22, 25-27, 31, 33-36 and 39-41 is patentable over Servi in view of Hetzler. Applicants respectfully submit that Servi and Hetzler are not properly combinable to form a basis for rejection of these claims. Further, the method and device resulting from the combination of Servi and Hetzler is not the subject matter of claims 2, 4-7, 10-12, 17, 19-22, 25-27, 31, 33-36 and 39-41.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Contrary to the Examiner's statement, there simply is no suggestion in either Servi or Hetzler to combine Servi with Hetzler for "improved performance, protection and efficiency." In particular, Hetzler does not disclose or suggest that the disclosed RAID 3 + 3 system can utilize an error correction and erasure code that uses a parity set and a data set having a relationship defined by a bipartite graph, such as that disclosed by Servi. Likewise, Servi does not disclose or suggest that the disclosed bipartite-graph-based error correction and erasure codes can be used with the Hetzler RAID 3 + 3 system.

In fact, Hetzler discloses that at least one Maximum Distance Separation code that can be used with the RAID 3+ 3 system is a Reed-Solomon code. (See Hetzler, paragraph [0021].) Servi teaches away from use of a Reed-Solomon code by highlighting drawbacks of a Reed-Solomon code in paragraph [0006] and [0126] and in Table 9. Further, Servi provides no disclosure that a Reed-Solomon code should be used in place of the Servi bipartite-graph-based error correction and erasure code. Accordingly, Applicants respectfully submit that it appears that the Examiner is completely overlooking this disclosure of Servi.

Thus, Applicants respectfully submit that it is only by impermissible hindsight that the Examiner is able to reject claims 2, 4-7, 10-12, 17, 19-22, 25-27, 31, 33-36 and 39-41 based on the combination of Servi and Kaneda. Neither of the applied patents provides a proper suggestion for combination. It is only by the Applicants' disclosure that the Examiner can select particular features of Servi and Kaneda to make the rejection.

Consequently, Applicants respectfully request that the Examiner withdraw this rejection.

Applicants note that additional patentable distinctions between Servi and Kaneda, and Servi and Hetzler and the rejected claims exist; however, the foregoing is believed sufficient to address the Examiner's rejections. Likewise, failure of the Applicants to respond to a position taken by the Examiner is not an indication of acceptance or acquiescence of the Examiner's position. Instead, it is believed that the Examiner's positions are rendered moot by the foregoing and, therefore, it is believed not necessary to respond to every position taken by the Examiner with which Applicant does not agree.

### CONCLUSION

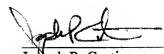
In view of the above amendments and arguments, it is urged that the present application is now in condition for allowance. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below.

A general authorization under 37 C.F.R. § 1.25(b), second sentence, is hereby given to credit or debit Deposit Account No. 09-0441 for the instant filing and for any other fees during the pendency of this application under 37 C.F.R. §§ 1.16, 1.17 and 1.18.

It is requested that this application be passed to issue with claims 1-43.

Respectfully submitted,

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